# TRAFFIC CONTROL & PROTECTION, STANDARD 701402

Eff. 08-20-2004 Rev. 04-01-2009

**HIGHWAY STANDARD 701402**: The following sequence shall be followed for installation, relocation, and removal of the traffic control devices and the concrete barrier.

For installation, relocation, removal of barriers and work zone speed limit sign assemblies, ‘Flagger Ahead’ signs and a flagger shall be used as shown on Highway Standard 701401 until the barrier wall is set or relocated with each end properly secured to the pavement and protected with a completely installed impact attenuator and all workers and equipment are located behind the barrier wall. For removal operations, the flagger shall be used until all barriers; traffic control devices, workers and equipment are off the pavement.

**INITIAL INSTALLATION OF CONCRETE BARRIER:**

**Step 1**. All warning signs shall be erected beginning with the farthest sign from the work area. Arrowboards shall be placed and actuated prior to placement of plastic drums forming the taper.

**Step 2.** The initial lane closure shall be implemented by installing a taper of drums beginning at the edge of pavement and progressing toward centerline until the entire lane is closed.

**Step 3.** The concrete barrier shall be erected (see Highway Standard 704001) beginning with the last concrete barrier to be placed and proceed toward centerline at a ratio of 12:1 until the lane is closed. The tangent portion shall be placed to provide a minimum work area and a maximum travel lane width. All vertical panels shall be in place before the end of the work day.

**RELOCATION OF CONCRETE BARRIER:**

**Step 1.** The tangent portion of the barrier shall be relocated beginning at the end farthest from the taper. Each section of concrete barrier shall be repositioned by relocating it onto the new surface. All operations shall be conducted within the area protected by the lane closure. Reflective drums at 20’ (6 m') centers shall be used to temporarily protect any openings in between the new and old bridge decks until traffic is relocated.

**Step 2.** This step should not begin until it appears that this Step and Step 3 can be completed without interruption. The tapered portion of the barrier shall be relocated in two stages. The first stage will line up the taper, as a straight-line extension of the tangent wall and the second stage will form the taper as described in Step 3. The arrowboards should be relocated as required but not actuated until the changeover is completed.

**Step 3.** Relocate all drums to the centerline, alerting all workers to the possibility of motorists using both lanes. Flagger(s) shall direct motorists to the newly surfaced lane and the arrowboards shall be actuated. Install drums forming the new lane closure

taper. Revise sign messages for the appropriate lane. Install the concrete wall taper by working behind the drums forming the lane closure, beginning at the previous lead end of the tangent wall and working toward the shoulder.

**REMOVAL OF CONCRETE BARRIER:**

**Step 1.** The tangent portion shall be removed beginning at the end farthest from the taper.

**Step 2.** This step should not begin until it appears that all the concrete barrier can be removed without interruption from the work site. The barriers shall be removed beginning at the downstream end of the tangent portion and continuing upstream to the taper. The taper portion shall be removed last, beginning at the end farthest from the shoulder. Removal of all other traffic control devices should be removed in the normal sequence.

**BASIS OF PAYMENT:** This work shall be considered as included in the pay item for TRAFFIC CONTROL AND PROTECTION, STANDARD 701402, for TEMPORARY CONCRETE BARRIERS, and for other pay items as described in the Standard Specifications and these Special Provisions. Vertical Panels, if specified in the plans, shall not be paid for separately, but shall be considered to be included in the cost of TRAFIC CONTROL AND PROTECTION, STANDARD 701402, for TEMPORARY CONCRETE BARRIERS.